BRUHATH BANGALORE MAHANAGARA PALIKE

YELAHANKA ZONE ELECTRICAL DIVISION

Name of the work :- Detaild estimate for Replacing burntout UG Cables and Deteriorated Street lights by LED Street Lights to Allalsandra ROB Yalahanka Main road Ward No 04

Est Cost **1460000.00**

Sl. No	SR Page No	Description	Unit	Qty	Rate	Amount
1	67/12.8.5	Supply of LED Streetlight luminaire with pressure die cast aluminium housing body for optimal thermal dissipation. Lamp compartment comprising of anti glare clear diffuser with Injection moulded polycarbonate material, delivering superior light output. Rated life Burning Hrs 50000 hr @ Lumen Maintenance of 70%. maximum light intensity should be between 60 degrees to 70 degrees. CCT > 5500K, IP 66 optical and electrical compartment & impact resistance of complete luminaire > IK08. Power Factor >0.9 with mains. Surge Protection- Min 5KV along with Over voltage/ Overload, short circuit/ miss-wiring protection. Compatible for pole mouting with outer dia of 40mm to 50mm. Universal Voltage driver to operate wide voltage range from 100V to 270V 50/60Hz application. Compliance to IS 10322/IEC 60598, LM 79 & LM 80 Adherence with RoHS. UL approved MCPCB. Top access street light with single screw to ensure ease of maintenance at the sight site location with minimized minimal tools. LED Light fixture with W System Power consumption. LED Efficiency>130lm/w. nominal CRI >75. Luminaire manufacturer should have in-house facility accredited by NABL/CPRI & any Government certified agency & Design & Development facility certified by ISO 9001:2008. Housing with supplier word mark /name shall be Engraved / Embossing on the die cast housing/ Body part. Warranty of 2 Years against any manufacturing defect working under standard electrical conditions as mentioned above should be given by LED manufacturer & Cree/Nichia/ Lumileds/Osram make LED Source.LED Streetlight 120 Watts	Nos	40	9200.00	368000.00
2	67/12.9.6	Supply of LED floodlight luminaire with pressure die cast aluminium housing body for optimal thermal dissipation. Lamp compartment comprising of anti glare clear diffuser with Injection moulded polycarbonate/clear glass material, delivering superior light output. Rated life Burning Hrs 50000 hr @ Lumen Maintenance of 70%, CCT > 5500K, IP 66 optical and electrical compartment & impact resistance of complete luminaire > IK08. Power Factor >0.9 with mains, Surge Protection- Min 5KV along with Over voltage/ Overload, short circuit/ miss-wiring protection. Compatible for pole mouting with outer dia of 40mm to 50mm.				
		Universal Voltage driver to operate wide voltage range from 100V to 270V 50/60Hz application. Compliance to IS 10322/ IEC 60598, LM 79 & LM 80 Adherence with RoHS. UL approved MCPCB. Top access street light with single screw to ensure ease of maintenance at the sight site location with minimized minimal tools. LED Light fixture with W System Power consumption. LED Efficiency>130lm/w, nominal CRI >75. Luminaire manufacturer should have in- house facility accredited by NABL/CPRI & any Government certified agency & Design & Development facility certified by ISO 9001:2008. Housing with supplier word mark /name shall be Engraved / Embossing on the die cast housing/ Body part. Warranty of 2 Years against any manufacturing defect working under standard electrical conditions as mentioned above should be given by LED manufacturer & Cree/Nichia/ Lumileds/Osram make LED Source.LED Floodlight 200W	Nos	15	18000.00	270000.00

3	67/12.9.7	Supply of LED floodlight luminaire with pressure die cast aluminium housing body for optimal thermal dissipation. Lamp compartment comprising of anti glare clear diffuser with Injection moulded polycarbonate/clear glass material, delivering superior light output. Rated life Burning Hrs 50000 hr @ Lumen Maintenance of 70%, CCT > 5500K, IP 66 optical and electrical compartment & impact resistance of complete luminaire > IK08. Power Factor >0.9 with mains. Surge Protection- Min 5KV along with Over voltage/ Overload, short circuit/ miss-wiring protection. Compatible for pole mouting with outer dia of 40mm to 50mm				
		Universal Voltage driver to operate wide voltage range from 100V to 270V 50/60Hz application. Compliance to IS 10322/ IEC 60598, LM 79 & LM 80 Adherence with RoHS. UL approved MCPCB. Top access street light with single screw to ensure ease of maintenance at the sight site location with minimized minimal tools. LED Light fixture with W System Power consumption, LED Efficiency>130lm/w, nominal CRI >75. Luminaire manufacturer should have in- house facility accredited by NABL/CPRI & any Government certified agency & Design & Development facility certified by ISO 9001:2008. Housing with supplier word mark /name shall be Engraved / Embossing on the die cast housing/ Body part. Warranty of 2 Years against any manufacturing defect working under standard electrical conditions as mentioned above should be given by LED manufacturer & Cree/Nichia/ Lumileds/Osram make LED Source.LED Floodlight 240W	Nos	4	18400.00	73600.00
4	14.1.2	Supplying and Fixing of mm dia class A GI pipe bracket up to 2 Mtrs long bent at suitable angle and fixing to this bracket 1x40/2x40 watts fluorescent tube street light fitting of all capacities to GI or CI or rail or RCC pole / wall using suitable clamps, bolts, and nuts and wiring using suitable capacity wires.Using 32mm dia G.I.Pipe	Nos	30	835.00	25050.00
5	14.5	Fixing halogen/metal halide / SVL / IL / LED floodlight fitting over existing pole / wall ceiling including clamps, bolts, nuts and wiring using suitable capacity wires.	Each	59	175.00	10325.00
6	31/5.43.2	Supply and Installation / Fixing / Provision of Pole box with HRC Fuse / MCB provision and suitable connector / terminal for 3 Ph / 1 Ph connections with Loop-In & Loop- Out terminals for 10 Sqmm / 25 Sqmm 3.5 C Al/Ar / Cu/ Ar Cable and branch out 2.5 Sqmm 2 core Al/Cu PVC Insulated cable, enclosed in a Thermoplastic, Polystyrene enclosure, which should be shock proof, safe, IP65(Weather Proof), rust proof, dust proof, water proof having Internally Embedded Gasket with provision for cable entry through IP65 Thermoplastic, polyamide glands and/or grommets.260mmx210mmx116mm	Nos	50	2054.00	102700.00
7	30/ 5.41	Supplying and fixing angle iron frame work fabricated out of M.S. angle iron., and M.S. flat ... with bolts, washers etc., and painted with 2 coats of red oxide and then two coats of approved paint. 2) 50x50x6mm	Per Mtr	20	330.00	6600.00

8	26/5.14	Supplying and fixing Moulded Case Circuit Breaker (MCCB) over the existing wood/panel board using necessary screws, bolts, nuts and wiring complete. Protection of Overload and Short circuit with thermal Magnetic/Micro processor release and Earth Fault as per IS-13947. (Icu = Ics) THREE POLE, 1) 100Amps 25kA.	Each	3	4530.00	13590.00
9	30/5.42	Fabricating supplying and mounting MS box made out .... SWG suitable for floor / wall mounting, fully weather proof with provision for better heat dissipation, provided with hinged front cover, equipped with tamper proof locking arrangements, with suitable size clamps with necessary cable entry pipe with gland and box should be finished with 7tanks treatment with powder coated paint and finally finished with approved colour etc., complete. 1) 14SWG	Mtr	100000	0.40	40000.00
10	10/3.9	Supplying and fixing hylum plastic sheet 3mm thick with necessary nitches for fixing switches, regulators etc., and fixing on existing wood or metal box using N.F. screws.	Sqcm	8000	0.24	1920.00
11	40/6.4.4	Supplying of 1.1 KV LT UG cable XLPE or Heat resistant PVC insulated, PVC extruded Inner sheath armoured UG LT cable as per IS-1554 (Part-1) or IS-7098 Part-1, Armouring strip thickness in average +5% and resistivity 14 Ohms/Kms (Max) as per IS-3975 4 core 16 sqmm	Mtr	500	150.00	75000.00
12	41/6.5.6	Labour charges for laying of 1.1 KV class UG cable in existing trench GI pipe / stoneware pipe / on wall / on pole as required.On wall /Structure 6 sqmm to 16 sqmm	Mtr	500	30.00	15000.00
13	5/2.3.2	Wiring for lighting/power circuit using one of FRLS PVC insulated 1100V grade, multistrand copper wire with low conductor resistance single core in open or concealed system of wiring with specified IS-694:confirming to latest amendments.10. sqmm	Mtrs	17	115.00	1955.00
14	7/2.7.1	Wiring for lighting/power circuit using one of PVC insulated 1100V grade, stranded Aluminium wire single core in open or concealed system of wiring. 4 sqmm	Mtrs	400	9.00	3600.00
15	Pwd Sr	Hiring of 35 tons capacity Crane for releasing and refixing of High Mast	Hrs	15	548.00	8220.00
		Total Rs				1015560.00

16	Ar	Supplay and erection of Single phase Thyristor based smart street light control system consisting of following aquipments 1. Precise turn ON & OFF of street lights on pre programmed data 2. 2 x 16 character LCD display unit to display date, status ON Or OFF , turn ON & OFF time, 3. Keypad to set/edit ON & OFF time as per the end user 4. Microcontroller with Real Time Clock and associated hardware 5. 1 No, SCR 162 amps thyristor module for load switching mounted on an extruded alluminium heat sink 6. Thyristor Driver Card: Driver control circuit to switch ON & OFF the Thyristor module 7. Firmware: Firmware to control the hardware and display the required data 8. Power Supply: AC to DC conversion circuit required for the electronic circuitry and driver control card 9. Enclosure is made out of 18 swg CRCA ms sheet of size H480xW310XD200mm with luvers for Heat dissipation IP65 weather proof metal enclosure 10. Wiring & other components like wiring, connectors ,insulators, Alluminium Bus bar and 2 nos of 125 amps single pole MCB for main power Supply control and Manual On & off operation & etc complete.	Nos	7	31860.00	223020.00
17	61/7.6.5	Supplying off1.1 kV, LT Aerial Bunched Cable, confirming to IS-14255: 1995 XLPE insulation Parameter shall be as below 1. Hot Set Test: a) Elongation under Load: 50% (Max) b) Permanent Elongation After Cooloing: 3% (Max) 2. Thermal Aging in oven: a) Tensile Strength: 16 N/mm² (Min) b) Elongation: 375% (Min) 3. Water Absorption Test a) Water absorbed: 0.5 mg/cm² (Max) 4. Carbon Black Content shall be ranging from 2% to 3% 3 X 25 + 1 X 25 + 1 X 16 SQ.MM (Insulated Messenger cum Neutral)	Per Mtr	500	147.00	73500.00
18	224/270/34.04	Stringing of 1.1kV grade aerial bunched 3 core cable of XLPE insulation of size (3x95) (for Phase conductor) + (1x70) (insulated messenger neutral) + (1x25) for street light control.	Mtrs	500	22.46	11230.00
19	1/2.07	LT 2 Pin X Arms - MS (Dwg No. BESCOM/GM/QS&S/32 Dtd 24.11.2018	Nos	15	87.00	1305.00
20	2/5.01	RCC Pole clamp - MS (Dwg No. BESCOM/GM/QS&S/30 Dtd 24.11.2018)	Nos	15	53.00	795.00

21	13/42.12	Supplaying of Piercing Connector Suitable for 16 Sqmm - 95 Sqmm AB Cable - Street Light Connections	Nos	30	165.00	4950.00
22	13/42.16	Supplaying of Dead End Clamp/Anchor Clamp Assembly 25 to 95 Sqmm Bare Messenger(Exclusive of pole clamp and eye hook)	Nos	4	135.00	540.00
23	12/38.12	Installation of Insulation piercing connector for main to street light Main:16-95sqmm,Tap :1.5-10sqmm(EP95)	Nos	30	59.00	1770.00
24	12/38.1	Fixing of Universal/ Dead end Hook	Nos	4	127.00	508.00
25	42.19	Supplay of Suspension Clamp Assembly 16 to 70 Sqmm Bare Messenger(Exclusive of pole clamp and eye hook) 284845 No	Nos	15	196.00	2940.00
26	38.06	Erection of Suspension Clamp - 25 to 95 sqmm bare messenger		15	127.00	1905.00
		Total Rs				**1338023.00**
		GST 12 % on Item No 1 to 15 Rs		1015560.00		121867.20
		Misscelleneous charges				109.80
	TOTAL					**1460000.00**

CERTIFICATE

1. The Place was inspected and work is essential.
2. The Provision made in the estimate is adequate and are necessary.
3. The Work comes in the BBMP limit and is legitimate charges on the Corporation Funds.
4. The rates in the Estimate is based on PWD(Elec) SR of 2019-20,BESCOM CSR 2018-19 & approved Rates

Asst. Engineer (Elec)

Asst. Exe.Engineer (Elec)
Sub-Division No.
Bruhat Bangalore Mahanagara Palike

EXECUTIVE ENGINEER (ELEC)
YELAHANKA DIVISION
BRUHAT BANGALORE MAHANAGARA PALIKE

Administrative Sanction for Rs. 14,60,000:00 Rupees FORTEEN LAKHS SIXTY THOUSAND ONLY is accorded under head PO300 M AND R TO STREET LIGHTS REPLACEMENT of Burnt Bulbs [PACKAGE] Registered as EE No. 10/2021-22 Subject to conditions contained in enclosed memo No. BBMP/EE(ELE)42/AS/10/2021-22 Dt 17.07.2021

Executive Engineer

TECHNICALLY SANCTIONED FOR Rs. 14,60,000:00 Rupees FORTEEN LAKHS SIXTY THOUSAND ONLY — Under PO300 M AND R TO STREET LIGHTS REPLACEMENT [PACKAGE] Registered as EE ( ) No. 06/2021-22 Subject to conditions contained in enclosed memo EE ( ) No. BBMP/EE(ELE)42/AS/10/21-22 Dt. 17.07.2021 Estimate Ar Sanctioned BBMP/EE(ELE)42/TS/06/2021-22 Dated 20.07.2021 Rs. 14,60,000:00

Executive Engineer